

What is Claimed is:

1. A resin composition made from admixing starting materials comprising:
 - (a) 0 to 90 parts by weight of a polyolefin;
 - (b) 5 to 95 parts by weight of a functional polyolefin;
 - (c) 5 to 40 parts by weight of a polystyrenic; and
 - (f) 0 to 30 parts by weight of an elastomer,where the total amount of components of (a), (b), (c) and (d) in the resin composition is 100 parts by weight.
2. The resin of claim 1 wherein the polystyrenic is selected from the group consisting of a homopolymer of styrene and a copolymer of styrene with unsaturated monomers.
3. The resin of claim 1 wherein the polystyrenic is high impact polystyrene.
4. The resin of claim 1 wherein the polystyrenic is a blend of two or more different polystyrenics.
5. The resin of claim 1 wherein the polystyrenic is a copolymer of styrene with a monomer selected from the group consisting of ethylene, butene, butadiene or isoprene.
6. The resin of claim 5 wherein the polystyrenic is selected from the group consisting of ethylene/styrene random or block copolymers, ethylene/butadiene random or block copolymer and and hydrogентаed and partially hydrogентаed butadiene/styrene copolymers.
7. The resin composition of claim 1, wherein the functional polyolefin is a grafted polyolefin.
8. The resin composition of claim 3, wherein the functional polyolefin is a grafted polyolefin.

9. A resin composition made from admixing starting materials comprising:
- (a) 0 to 90 parts by weight of polyethylene;
 - (b) 5 to 95 parts by weight of maleic anhydride grafted polyethylene;
 - (c) 5 to 40 parts by weight of high impact polystyrene; and
 - (d) 0 to 30 parts by weight of an elastomer selected from the group consisting of ethylene-propylene elastomer, ethylene-propylene diene elastomer, polyisobutylene and polyisobutylene styrene-butadiene elastomer,
- where the total amount of components of (a), (b), (c) and (d) in the resin composition is 100 parts by weight.
10. The resin composition of claim 9 made from admixing starting materials comprising:
- (a) 40 to 60 parts by weight of polyethylene;
 - (b) 10 to 30 parts by weight of maleic anhydride grafted polyethylene;
 - (c) 10 to 35 parts by weight of the high impact polystyrene; and
 - (c) 10 to 25 parts by weight of the elastomer compound,
- where the total amount of components of (a), (b), (c) and (d) in the resin composition is 100 parts by weight.
11. The resin composition of claim 10 wherein the polyethylene comprises one or more of high density polyethylene, linear low density polyethylene and low density polyethylene.
12. The resin composition of claim 7 wherein the grafted polyethylene is selected from the group consisting of maleic anhydride grafted linear low density polyethylene, maleic anhydride low density polyethylene, maleic anhydride grafted high density polyethylene.
13. A resin composition made from admixing starting materials comprising:
- (a) 0 to 90 parts by weight of a non-olefin copolymer;

- (b) 5 to 95 parts by weight of a functional polyolefin;
 - (c) 5 to 40 parts by weight of high impact polystyrene; and
 - (g) 0 to 30 parts by weight of an elastomer,
- where the total amount of components of (a), (b), (c) and (d) in the resin composition is 100 parts by weight.

14. The resin composition of claim 13, wherein the non-olefin copolymer is ethylene vinyl acetate copolymer.
15. The resin composition of claim 13 wherein the grafted polyethylene is selected from the group consisting of maleic anhydride grafted linear low density polyethylene, maleic anhydride grafted low density polyethylene and maleic anhydride grafted high density polyethylene.
16. The resin composition of claim 15, wherein the functional polyolefin is maleic anhydride grafted polyethylene.
17. The resin composition of claim 13, comprising:
 - (a) 40 to 60 parts by weight of ethylene vinyl acetate copolymer;
 - (b) 10 to 30 parts by weight of maleic anhydride grafted polyethylene;
 - (d) 10 to 35 parts by weight of high impact polystyrene; and
 - (d) 10 to 20 parts by weight of an elastomer compound.

where the total amount of components of (a), (b), (c) and (d) in the resin composition is 100 parts by weight.
18. The resin composition of claim 17 wherein the ethylene vinyl acetate copolymer contains 3 to 40wt% vinyl acetate.
19. The resin composition of claim 18 wherein the ethylene vinyl acetate copolymer contains 5 to 30 wt% vinyl acetate.
20. An adhesive composition comprising the resin of claim 1.
21. An adhesive composition comprising the resin of claim 9.

22. An adhesive composition comprising the resin of claim 13.
23. A composite structure comprising:
 - (a) a metal substrate;
 - (b) a polymeric layer; and
 - (c) a layer of the adhesive composition of claim 20 between the metal substrate and the polymeric layer.
24. A composite structure comprising:
 - (a) a metal substrate;
 - (b) a polymeric layer; and
 - (c) a layer of the adhesive composition of claim 21 between the metal substrate and the polymeric layer.
25. A composite structure comprising:
 - (a) a metal substrate;
 - (b) a polymeric layer; and
 - (c) a layer of the adhesive composition of claim 22 between the metal substrate and the polymeric layer.

AMENDED CLAIMS

[received by the International Bureau on 08 February 2001 (08.02.01)
original claims 1, 9, 13 amended; remaining claims unchanged (3 pages)]

1. A resin composition made from admixing starting materials comprising:
 - (a) 0 to 90 parts by weight of a polyolefin;
 - (b) 5 to 95 parts by weight of a functional polyolefin;
 - (c) 5 to 40 parts by weight of a polystyrenic; and
 - (d) 1 to 30 parts by weight of an elastomer,where the total amount of components of (a), (b), (c) and (d) in the resin composition is 100 parts by weight.
2. The resin of claim 1 wherein the polystyrenic is selected from the group consisting of a homopolymer of styrene and a copolymer of styrene with unsaturated monomers.
3. The resin of claim 1 wherein the polystyrenic is high impact polystyrene.
4. The resin of claim 1 wherein the polystyrenic is a blend of two or more different polystyrenics.
5. The resin of claim 1 wherein the polystyrenic is a copolymer of styrene with a monomer selected from the group consisting of ethylene, butene, butadiene or isoprene.
6. The resin of claim 5 wherein the polystyrenic is selected from the group consisting of ethylene/styrene random or block copolymers, ethylene/butadiene random or block copolymer and and hydrogenated and partially hydrogenated butadiene/styrene copolymers.
7. The resin composition of claim 1, wherein the functional polyolefin is a grafted polyolefin.
8. The resin composition of claim 3, wherein the functional polyolefin is a grafted polyolefin.

9. A resin composition made from admixing starting materials comprising:
- (a) 0 to 90 parts by weight of polyethylene;
 - (b) 5 to 95 parts by weight of maleic anhydride grafted polyethylene;
 - (c) 5 to 40 parts by weight of high impact polystyrene; and
 - (d) 1 to 30 parts by weight of an elastomer selected from the group consisting of ethylene-propylene elastomer, ethylene-propylene diene elastomer, polyisobutylene and polyisobutylene styrene-butadiene elastomer,
- where the total amount of components of (a), (b), (c) and (d) in the resin composition is 100 parts by weight.
10. The resin composition of claim 9 made from admixing starting materials comprising:
- (a) 40 to 60 parts by weight of polyethylene;
 - (b) 10 to 30 parts by weight of maleic anhydride grafted polyethylene;
 - (c) 10 to 35 parts by weight of the high impact polystyrene; and
 - (d) 10 to 25 parts by weight of the elastomer compound,
- where the total amount of components of (a), (b), (c) and (d) in the resin composition is 100 parts by weight.
11. The resin composition of claim 10 wherein the polyethylene comprises one or more of high density polyethylene, linear low density polyethylene and low density polyethylene.
12. The resin composition of claim 7 wherein the grafted polyethylene is selected from the group consisting of maleic anhydride grafted linear low density polyethylene, maleic anhydride low density polyethylene, maleic anhydride grafted high density polyethylene.
13. A resin composition made from admixing starting materials comprising:
- (a) 0 to 90 parts by weight of a non-olefin copolymer;

- (b) 5 to 95 parts by weight of a functional polyolefin;
- (c) 5 to 40 parts by weight of high impact polystyrene; and
- (e) 1 to 30 parts by weight of an elastomer.

where the total amount of components of (a), (b), (c) and (d) in the resin composition is 100 parts by weight and wherein the resin composition is free of a tackifier.

14. The resin composition of claim 13, wherein the non-olefin copolymer is ethylene vinyl acetate copolymer.
15. The resin composition of claim 13 wherein the grafted polyethylene is selected from the group consisting of maleic anhydride grafted linear low density polyethylene, maleic anhydride grafted low density polyethylene and maleic anhydride grafted high density polyethylene.
16. The resin composition of claim 15, wherein the functional polyolefin is maleic anhydride grafted polyethylene.
17. The resin composition of claim 13, comprising:
 - (a) 40 to 60 parts by weight of ethylene vinyl acetate copolymer;
 - (b) 10 to 30 parts by weight of maleic anhydride grafted polyethylene;
 - (c) 10 to 35 parts by weight of high impact polystyrene; and
 - (d) 10 to 20 parts by weight of an elastomer compound.where the total amount of components of (a), (b), (c) and (d) in the resin composition is 100 parts by weight.
18. The resin composition of claim 17 wherein the ethylene vinyl acetate copolymer contains 3 to 40wt% vinyl acetate.
19. The resin composition of claim 18 wherein the ethylene vinyl acetate copolymer contains 5 to 30 wt% vinyl acetate.
20. An adhesive composition comprising the resin of claim 1.